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|                 |             |                      |                     |
|-----------------|-------------|----------------------|---------------------|
| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
|-----------------|-------------|----------------------|---------------------|

08/366,339 12/28/94 KEESMAN

|          |            |
|----------|------------|
| G        | PHB-33-946 |
| EXAMINER |            |

E3M1/0428

ALGY TAMOSHUNAS  
US PHILIPS CORPORATION  
INTELLECTUAL PROPERTY DEPARTMENT  
580 WHITE PLAINS ROAD  
TARRYTOWN NY 10591

|          |              |
|----------|--------------|
| ARRAU, A | PAPER NUMBER |
|----------|--------------|

DATE MAILED 15

04/28/97

16 / F  
4/26/97

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office

Address: Box ISSUE FEE  
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WASHINGTON, D.C. 20231

**NOTICE OF ALLOWANCE AND ISSUE FEE DUE**

E3M1/0428

ALGY TAMOSHUNAS  
US PHILIPS CORPORATION  
INTELLECTUAL PROPERTY DEPARTMENT  
580 WHITE PLAINS ROAD  
TARRYTOWN NY 10591

| APPLICATION NO.       | FILING DATE        | TOTAL CLAIMS | EXAMINER AND GROUP ART UNIT | DATE MAILED   |
|-----------------------|--------------------|--------------|-----------------------------|---------------|
| 08/366,339            | 12/28/94           | 013          | RAO, A                      | 2615 04/28/97 |
| First Named Applicant | KEESMAN, GERRIT J. |              |                             |               |

TITLE OF INVENTION: BUFFER MANAGEMENT IN VARIABLE BIT-RATE COMPRESSION SYSTEMS

| ATTY'S DOCKET NO. | CLASS-SUBCLASS | BATCH NO. | APPLN. TYPE | SMALL ENTITY | FEE DUE   | DATE DUE |
|-------------------|----------------|-----------|-------------|--------------|-----------|----------|
| 2 PHB-33-946      | 348-415.000    | M37       | UTILITY     | NO           | \$1290.00 | 07/28/97 |

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.**

**THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.**

**HOW TO RESPOND TO THIS NOTICE:**

I. Review the SMALL ENTITY status shown above.  
If the SMALL ENTITY is shown as yes, verify your current SMALL ENTITY status:

A. If the status is changed, pay twice the amount of the FEE DUE shown and notify the Patent and Trademark Office of the change in status, or

B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

A. Pay FEE DUE shown above, or

B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B of this notice should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "6b" of Part B should be completed.

III. All communications regarding this application must give application number and batch number. Please direct all communication prior to issuance to Box ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Patents Issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

# Notice of Allowability

Application No.

08/366,339

Applicant(s)

Keesman

Examiner

A. Rao

Group Art Unit

2615



All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

☒ This communication is responsive to Amendment filed on 2/18/97 and telephone interview of 4/26/96.

☒ The allowed claim(s) is/are 1-12 and 14

☐ The drawings filed on \_\_\_\_\_ are acceptable.

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE **THREE MONTHS** FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.

☒ Applicant MUST submit NEW FORMAL DRAWINGS

☐ because the originally filed drawings were declared by applicant to be informal.

☒ including changes required by the Notice of Draftsperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No. 3

☐ including changes required by the proposed drawing correction filed on \_\_\_\_\_, which has been approved by the examiner.

☐ including changes required by the attached Examiner's Amendment/Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

☒ Interview Summary, PTO-413

☒ Examiner's Amendment/Comment

☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

☒ Examiner's Statement of Reasons for Allowance

TOMMY P. CHIN  
SUPERVISORY PATENT EXAMINER  
GROUP 2600

Serial Number: 08/366,339  
Art Unit: 2615

#16/F  
-2-  
4/26/97

**Part III EXAMINER'S AMENDMENT**

1. An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 C.F.R. § 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the Issue Fee.

Authorization for this Examiner's Amendment was given in a telephone interview with Mr. Robert Westerlund (#31,439) on 4/26/97, as summarized in Paper 15.

2. The application has been amended as follows:

**In the Claims:**

✓  
Claim 13 has been cancelled.

Claim 12 has been rewritten as follows:

12. A method of compression for transmission of an encoded digital bit stream having a variable bit rate, comprising the steps of:

detecting a current bit rate of the encoded digital bit stream;

sequentially writing the encoded digital bit stream into a buffer at the detected current bit rate;

reading the encoded digital bit stream out of the buffer at a buffer read bit rate; and,

F1

*F1  
Cont*

varying the buffer read bit rate in such a manner as to maintain a substantially constant fullness level of the buffer in response to changes in the detected current bit rate, wherein the buffer read bit rate is a percentage of the detected current bit rate, which percentage varies inversely in relation to changes in the detected current bit rate.

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***Allowable Subject Matter***

3. Claims 1-12, and 14 (as amended above) are allowable over the prior art of record.

4. The following is an Examiner's Statement of Reasons for Allowance:

Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably **accompany** the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Claims 1, 5, and 12 (as amended above) describe in a rate-matching encoding buffer with the novel step of generating buffer output variable bit rate as a inversely proportional percentage of the input variable bit rate provided by the encoder. Claims 2-4, 6-11, and 14 are allowable for reasons discussed above with regards to the independent claims.

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Art Unit: 2615

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*Conclusion*

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Huang discloses an adaptive bit-rate allocation for a video and audio coder. Rynderman discloses video data compression method and system which measures compressed data storage time to optimize compression rates. Kiriyama discloses video and audio data multiplexing into ATM with no dummy cells used. Tanaka discloses a data processing apparatus. De Haan discloses a method and apparatus for encoding.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anand Rao whose telephone number is (703) 305-4813.

*asr*  
asr  
April 26, 1997

  
TOMMY P. CHIN  
SUPERVISORY PATENT EXAMINER  
GROUP 2600